

What is claimed is:

1. A shift manipulating device for an automatic transmission, comprising a path, which is formed on an upper cover of a control switch device and permits a shift lever of the automatic transmission to be inserted therethrough to thereby restrict a direction of manipulation of the shift lever,

wherein the path comprises operating positions composed of at least a P range, R range, N range, and a D range, the P range, R range, N range and the D range being arranged in this order from a front side of a vehicle, the shift lever being adapted to be disposed on three lines including a second line, third line and a fourth line in a right and left direction;

the P range is formed on an end of the path and arranged in a first path on the second line;

the R range is arranged in a third path on the third line from the first path through a second path;

the N range is arranged in a fifth path on the second line from the third path through a fourth path; and

the D range is contiguous and adjacent to the fifth path and arranged in a sixth path on the second line.

2. The shift manipulating device for an automatic transmission, according to claim 1, wherein the shift lever has a knob at an upper end thereof and a holder at a lower end thereof provided with a perturbing body, which is biased by a perturbation spring, and the holder supports a second shaft in a rotatable manner.

and is provided with a first shaft, which is perpendicular to the second shaft and is born by a casing.

3. The shift manipulating device according to claim 2, wherein the perturbing body is in pressure contact with a perturbation groove for returning the shift lever to the second line of the path, and a perturbation groove for supporting the shift lever in the P range, R range, N range and the D range.

4. The shift manipulating device according to claim 3, wherein the holder mounts a lock pin laterally thereof for preventing the shift lever on the second line from moving toward the third line.

5. The shift manipulating device according to claim 4, wherein the lock pin is biased by a spring and arranged in a lock-pin insertion hole in a manner to be capable of incoming and outgoing, the lock-pin insertion hole being formed in an inner wall of the casing, and a stopper movably arranged on a back portion of the lock pin prevents the lock pin from entering into the lock-pin insertion hole.

6. The shift manipulating device according to claim 5, wherein the stopper is swung by an actuator via a linkage, and the linkage connects at one end thereof to the actuator and has at the other end thereof the stopper, which is arranged on the back portion of the lock pin to be capable of incoming and outgoing.

7. The shift manipulating device according to claim 2, 3, 4,

5 or 6, wherein the first shaft has a rotor adapted for rotation together with the first shaft and provided with a magnet, and a first substrate is provided near the rotor to mount thereon magnetism sensing elements, which are responsive to magnetism of the magnet.

8. The shift manipulating device according to claim 6 or 7, wherein the holder is provided at a side thereof with a magnet, and a first substrate is provided near the holder to mount thereon magnetism sensing elements, which are responsive to magnetism of the magnet.

9. The shift manipulating device according to claim 6, 7 or 8, wherein the holder is provided on a side thereof with a pushing portion for opening and closing a parking gate switch, and a first substrate is provided near the holder to mount thereon the parking gate switch.

10. A shift manipulating device comprising a path, which is formed on an upper cover of a control switch device and permits a shift lever of an automatic transmission to be inserted therethrough to thereby restrict a direction of manipulation of the shift lever,

wherein the shift lever has a lower end thereof disposed within a casin, which is mounted on the upper cover, and an electrode board is provided in the casing to mount thereon electric parts of an actuator control circuit device for actuating an actuator for preventing movements of the shift

lever.

11. The shift manipulating device according to claim 10, wherein the electric parts generating heat among the electric parts of the actuator control circuit device are mounted on a heat sink, which in turn is mounted on the electrode board.

12. The shift manipulating device according to claim 10 or 11, wherein the casing mounts in a lower area therein a bottom plate portion formed with a perturbation groove, with which a perturbation body provided on a holder at a lower end of the shift lever comes into pressure contact, and mounts on an inner wall thereof the electrode board, and a second substrate is arranged below the bottom plate portion to connect thereto terminals mounted on the electrode board.

13. A shift manipulating device for an automatic transmission, comprising a path which is formed on an upper cover of a control switch device and permits a shift lever of the automatic transmission to be inserted therethrough to thereby restrict a direction of manipulation of the shift lever, and wherein the shift lever has a lower end thereof disposed within a casing⁽⁴⁾ which is mounted on the upper cover, and a buzzer is arranged in the casing.

Add A2 7